Below are North Carolina's responses to the questions in the USED letter dated March 10, 2006. We have listed all of the issues raised in the letter followed by our responses.

Principle 1. Universal proficiency

- Additional information on the impact of the growth model to the number of schools or LEAs who would make AYP would be beneficial

Response: Based on our updated analyses built on the rules outlined in the amended proposal, 40 additional schools would have met AYP using growth (in addition to those who met through traditional means). If growth, as outlined in the details of the amended proposal, was the only basis for determining AYP, only 415 schools out of 2,202 schools with tested grades would have met AYP (instead of 1,270).

Principle 2. Establishing appropriate growth targets at the student level

- How will the state handle fluctuating scores of students? For example, how will growth be applied to students who are below proficient in year 1, proficient in year 2, and then below proficient in year 3?

Response: As outlined in Appendix A of the amended growth proposal, non-proficient students will be held accountable to a growth target based on a trajectory from their initial performance upon entering a tested grade in an LEA to proficiency 4 years later. For any student in a given year who is proficient, they will be held to a growth target based on their pretest scores from 2 previous years if available. For students who are non-proficient in year 1, proficient in year 2, and once again not proficient in year 3, in years 1 and 3, the student will be held to the growth targets built on the original trajectory toward proficiency while in year 2, the student will be held to the growth standard for proficient students.

- Are growth targets revised based upon fluctuating achievement or does the 4-year clock on growth begin with the first non-proficient score and continue on the same slope regardless of how much growth is found in the intervening years? Will the slope be recalculated?

Response: Yes, the growth trajectory remains constant. In an effort to avoid asymptotic expectations, once the trajectory is established, it remains the expectation until the student reaches their fourth year. In that year, the expected performance to meet the growth standard is to reach the proficiency level. For each year afterwards, if the student is not proficient, the growth will be compared to a targeted performance at the proficient level.

- Please clarify the process of determining the greater growth trajectory as provided in Appendix A of the proposal.

Response: As included in the amended Appendix A, growth in North Carolina is calculated on a change score scale. Once the scale score associated with the separation between the proficient and non-proficient achievement levels is

established, it can be transposed onto the change scale. This change score is unique to the grade and subject of the test, even though the scale is common to allow the calculation of growth from one year to the next. Another feature of using the change scale to calculate growth is that based on one of its properties, the curvilinear aspect of growth is represented in linear terms making it easier to calculate the growth trajectory. Thus it is realistic based on the research and analyses used to develop the growth model, to expect linear growth when measured on the change scale.

Using the student's earliest score (in the third grade a pretest is administered and is the first basis for growth) performance expectations that are based on growth expectations can be produced. For proficient students, using the ABCs growth model, the expectation (after converting developmental scores to the change scale) can be explained as 0.92 times the average of the two previous assessments (or 0.82 times the previous assessment if only one is available). For non-proficient students, the expectation is raised to expect that by the end of the fourth year in the LEA the student is proficient. To build the trajectory that brings students to that level of proficiency, the difference between the student's first test (on the change scale) and the level necessary for proficiency in the grade four years later (on the change scale) will be calculated. The performance target for each year is then based on a 25% decrease in the difference per year. This is an absolute target such that once the target is set, it is not changed based on the performance of a student in the intervening years.

Principle 4. Inclusion of all students

- Please provide clarification and justification for how LEP students and students with disabilities taking alternative assessments will be taken into account with this model.

Response: As listed in the amended proposal and based on discussions with the US Department of Education in a conference call on March 9, 2006, students with disabilities will be included if the assessment that is specified in their IEP and administered is scaled such that it can be converted to the change scale. This precludes students using alternate achievement standards and students using modified achievement standards.

LEP students will be included in growth calculations provided they meet the full academic year (FAY) requirements and have previous test scores that align with the change scale.

- Please clarify whether the growth model will be applied to all students in every school in the state.

Response: As listed in the amended proposal and based on discussions with the US Department of Education in a conference call on March 9, 2006, all students who meet the requirements of having participated in an appropriate pretest (either in the current year for third grade students or the previous year for other grade levels) will be included if they meet the full academic year requirement.

Principle 5. State assessment system and methodology

- Please clarify the type and level of reporting that will result from this growth model, whether at the state, district, school, or parent level.

Response: As listed in the amended proposal and based on discussions with the US Department of Education in a conference call on March 9, 2006, results of AYP determinations will be provided to the US Department of Education for both a pure growth system of determinations and the traditional status methods. In all cases, the basis for the AYP determination (whether by status or growth) will be part of the public reporting at school and LEA levels.

- Please clarify whether any smoothing techniques will be used in this model and provide information on how these will be calculated.

Response: No smoothing techniques are used. The proficiency standard for each grade and subject was set independently. For purposes of trajectory growth, the actual proficiency cut score is converted onto the change scale specifically for the grade and subject that is the target.

- Please clarify the minimum N that will be used in the growth model. Please also clarify what happens in the case where there is missing or unmatched data for students or in the case of new students within longitudinal data, and the minimum N is not met for the growth model.

Response: In the simulations run, the minimum N of 40 students is maintained for participation. This constraint is carried over to the number of FAY students tested, the minimum of 40 is necessary to deem that a group exists. Once the determination is made that the minimum number has been met, growth is calculated for all FAY students that have the necessary pretest scores, even if the number is less than 40.

Principle 6. Tracking student progress

- Please clarify how students who are new to the school will be treated in the growth model.

Response: Students new to the school will be treated differently based on two factors. First, if the student is proficient in the current year, they will be compared against a performance target based on a growth expectation aligning to calculations outlined in amended Appendix A (0.92 times the average of the two previous assessments or 0.82 times the previous assessment should only one be available). For non-proficient students the performance expectation will be based on a growth trajectory that places them at the proficient level by their fourth year in the tested grades in the LEA.

In the case where the student moves into a school from another LEA, the growth trajectory will be based on the previous assessment and the performance necessary to be proficient within four years in the tested grades in the LEA. If the student has moved into the school from within the LEA, the previous growth trajectory for the student will be maintained. This decision allows for students to

switch schools due to grade spans or changing attendance zones without relieving the LEA of its responsibility for the student.

- Please clarify how scores will be tracked across schools and whether and how the growth trajectory follows students across schools and LEAs.

Response: North Carolina has used growth as part of its accountability system for nine years. In that time, the system that has functioned well to provide the data necessary to calculate student growth has been a shared role between LEAs and the SEA. At the school building level, scores are entered into the student information management system, provided by the state, within 30 days of student transfer (the schools have systems of requesting cumulative records from the previous school) or within a few days of state testing. These scores are also stored at the SEA level. Each accountability year, the schools submit scores to the SEA for use in calculating growth. The SEA continues its quality assurance check of the data and in the cases where data errors are identified, the LEAs are informed of the errors and asked to make corrections prior to the data being used to calculate growth.

When a student transfers to a school outside the LEA, his/her growth trajectory is reset. When a student transfers from one school to another within the LEA, the growth trajectory is maintained. The data exchange within LEAs is accomplished well and in most cases where a patterned shift occurs (like when students are promoted to a grade in another school) the transfer of data is electronic. In one third of the LEAs in North Carolina, the transfer of test data between LEAs for transfer students is electronic. The state is transitioning from its former student information management system to a new system that better enables electronic transfers.